

What is Claimed is:

1. An echo canceling system comprising:
a tracking echo canceller;
a current echo canceller; and
5 an echo cancellation accuracy determination device that compares the accuracy of the tracking echo canceller and the current echo canceller.
2. The system of claim 1, further comprising an echo canceller updating device that updates the current echo canceller based on the comparison.
3. The system of claim 1, wherein the accuracy is determined based on a sync
10 frame.
4. The system of claim 1, wherein the tracking echo canceller monitors the echo in a signal.
5. The system of claim 4, wherein the signal is information within a digital communications environment.
6. The system of claim 1, wherein the accuracy is based on the subtraction of an
15 extraneous signal and an estimation of an echo from a received sampled signal.
7. The system of claim 1, wherein the tracking echo canceller adjusts one or more off-line echo canceller taps based on a known, received sync frame.
8. The system of claim 1, wherein a running average of a plurality of transmit
20 and receive signals are maintained and subtracted from a sync frame of samples.
9. The system of claim 1, wherein one or more coefficients for the current echo canceller are updated, while the tracking echo canceller is updated one or more times.
10. A method for updating an echo canceller comprising:
determining the accuracy of a tracking echo canceller;
25 determining the accuracy of a current echo canceller;
comparing the accuracy of the echo cancellers; and
updating the current echo canceller with the tracking echo canceller if the tracking echo canceller is more accurate.
11. The method of claim 10, further comprising sampling an input signal.
- 30 12. The method of claim 10, further comprising reading input samples into a memory device.
13. The method of claim 10, further comprising updating the tracking echo canceller.

14. The method of claim 10, further comprising sampling a portion of a sync frame.

15. The method of claim 14, wherein the sync frame is a portion of a communication in a digital communication environment.

5 16. The method of claim 10, further comprising subtracting an extraneous signal from a received sampled signal.

17. The method of claim 10, further comprising subtracting an estimate of the echo from a received sampled signal.

10 18. The method of claim 10, further comprising adjusting one or more off-line echo canceller taps based on a known, received sync frame.

19. The method of claim 10, wherein a running average of a plurality of transmit and receive signals are maintained and subtracted from a sync frame of samples.

20. The method of claim 10, wherein one or more coefficients for the current echo canceller are updated, while the tracking echo canceller is updated one or more times.

15 21. An information storage media comprising information that updates an echo canceller comprising:

information that determines the accuracy of a tracking echo canceller;

information that determines the accuracy of a current echo canceller;

information that compares the accuracy of the echo cancellers; and

20 information that updates the current echo canceller with the tracking echo canceller if the tracking echo canceller is more accurate.

22. The information storage media of claim 21, further comprising information that samples an input signal.

25 23. The information storage media of claim 21, further comprising information that reads input samples into a memory device.

24. The information storage media of claim 21, further comprising information that updates the tracking echo canceller.

25. The information storage media of claim 21, further comprising information that samples a portion of a sync frame.

30 26. The information storage media of claim 25, wherein the sync frame is a portion of a communication in a digital communication environment.

27. The information storage media of claim 21, further comprising information that subtracts an extraneous signal from a received sampled signal.

28. The information storage media of claim 21, further comprising information that subtracts an estimate of the echo from a received sampled signal.

29. The information storage media of claim 21, further comprising information that adjusts one or more off-line echo canceller taps based on a known, received sync frame.

5 30. The information storage media of claim 21, wherein a running average of a plurality of transmit and receive signals are maintained and subtracted from a sync frame of samples.

31. The information storage media of claim 21, wherein one or more coefficients for the current echo canceller are updated, while the tracking echo canceller is updated one or
10 more times.